

ABSTRACT

Asphalt pavement includes concrete subbase with processed by-product of manufacture of crushed limestone of regular sizes as a coarse aggregate. This aggregate is defined as enriched limestone waste of grading intermediate between the coarse and fine aggregates. The specified compressive strength and modulus of rupture of this concrete make up to 5,000 and 750psi, respectively.

The choice of the thickness and modulus of rupture of concrete subbase and the thickness of asphalt surface course should be provided by the trial-and-error method basing on the required capacity of asphalt pavement as a composite structural member to minimize the initial cost of pavement. Reduction of cracking of the asphalt surface course by limitation of its deformations due to the choice of the reasonable rigidity of the base course should reduce the maintenance cost of pavement.

This pavement is intermediate between rigid and flexible pavements and can be defined as semi-rigid or semi-flexible.